

CLAIMS

1. An active matrix display device comprising an array (45) of pixels (25) for producing a display output in response to drive voltages applied by drive circuit means (50, 15, 16), each pixel having a display element (18) comprising electro-optical material (2) between two electrodes (6, 5) and an associated switching device (19) via which a drive voltage is applied to one electrode (6), the polarity of the voltage applied across the electrodes of each cell being periodically inverted, and correction means (40, 55) for providing a measurement indicative of a DC voltage level at the pixels (25) and modifying voltages applied by the drive circuit means (50, 15, 16) in accordance therewith so as to compensate for display artefacts caused by the DC voltage level, the correction means comprising a plurality of measurement pixels (40) located outside the area of the array (45) of pixels (25) producing the display output, the plurality of measurement pixels being arranged separate from one to another at spaced locations along at least one side (46, 47) of the array and the correction means being arranged to provide a measurement (55) from each of the measurement pixels.
- 20 2. A device according to Claim 1, wherein the display pixels (25) are arranged in a row and column array (45) and wherein a measurement pixel (40) is arranged at each end of one side (46, 47) of the display pixel array which side extends parallel to the rows of display pixels.
- 25 3. A device according to Claim 2, wherein a measurement pixel is arranged also at each end of the side of the pixel array opposing the one side.
- 30 4. A device according to Claim 2 or Claim 3, wherein at least one further measurement pixel (40) is arranged spaced between the measurement pixels at the ends of the, or each, side of the array.

5. A device according to any one of the preceding claims, wherein the correction means (40, 55) is operable to vary the modification to the drive voltages for the display pixels in the direction of the one side according to a variation in the respective measurements from each of the measurement
5 pixels along the one side.

6. A device according to any one of the preceding claims, wherein each measurement pixel comprises a plurality of interconnected dummy pixels.

10 7. A device according to any one of the preceding claims, wherein the display elements comprise liquid crystal display elements.